CLAIMS

1. A subterranean well packer comprising:
   (a) a tubular mandrel formed about a fluid flow bore;
   (b) a resilient well sealing element formed about said mandrel and secured thereto at opposite axial ends whereby said element may be expanded to form a fluid seal with a well wall;
   (c) an expansion chamber between said sealing element and said mandrel;
   (d) a fluid flow channel between said fluid flow bore and said expansion chamber; and,
   (e) a fluid flow labyrinth in said fluid flow channel for activating a rheotropic fluid.

2. A well packer as described by claim 1 wherein said fluid flow channel comprises a one-way fluid flow check valve.

3. A well packer as described by claim 2 wherein said labyrinth is positioned in said flow channel between said check valve and said expansion chamber.

4. A well packer as described by claim 1 wherein the fluid flow labyrinth comprises a chamber having a series of baffles disposed therewithin in a substantially parallel relation to define a plurality of fluid flow spaces within the chamber.

5. A well packer as described by claim 4 wherein each of the baffles contains a fluid flow aperture, each of the fluid flow apertures being misaligned with fluid flow apertures in neighboring baffles so as to create a tortuous flow path through the chamber.

6. A well packer as described by claim 2 wherein said check valve comprises a ball-shaped valve member that is biased against a valve closure seat.

7. A well packer comprising:

(a) a tubular mandrel formed about a fluid flow bore;

(b) a resilient well sealing element formed about said mandrel and secured thereto at opposite axial ends whereby said element may be expanded to form a fluid seal with a well wall;

(c) an expansion chamber between said sealing element and said mandrel; and,

(d) a labyrinthine fluid flow path for ingress of fluid into the expansion chamber, the fluid flow path being sufficiently labyrinthine to activate a rheotropic fluid.

8. A well packer as described by claim 7 further comprising a one-way fluid flow check valve.

9. A well packer as described by claim 7 wherein the fluid flow labyrinth comprises a chamber having a series of baffles disposed therewithin in a substantially parallel relation to define a plurality of fluid flow spaces within the chamber.

10. A well packer as described by claim 9 wherein each of the baffles contains a fluid flow aperture, each of the fluid flow apertures being misaligned with fluid flow apertures in neighboring baffles so as to create a tortuous flow path through the chamber.

11. A well packer as described by claim 8 wherein said check valve comprises a ball-shaped valve member that is biased against a valve closure seat.

12. A method of setting a subterranean well packer comprising the steps of:

providing a tortuous flow path for a packer inflation fluid proximate of a packer element inflation chamber; and,

inflating said packer element with a rheotropic fluid delivered along said tortuous flow path into said inflation chamber.

13. A method as described by claim 12 wherein flow of said rheotropic fluid along said flow path is restricted to one-way flow.

14. A method as described by claim 12 wherein the tortuous flow path is provided by a series of baffles disposed therewithin in a substantially parallel relation to define a plurality of fluid flow spaces therebetween within the chamber.

15. The method of claim 13 wherein the flow of said rheotropic fluid is restricted to one way flow by a check valve.